

KING COUNTY AUDITOR'S OFFICE

CAPITAL PROJECTS OVERSIGHT PROGRAM (CPO)

DATA CENTER RELOCATION PROJECT OVERSIGHT REPORT FOR APRIL 2009

CURRENT RISK RATING ✓ A supplemental appropriation will be needed to complete this project but a request has yet to be submitted. Cash flow problems may occur if supplemental funding is not available by fall. This could lead to schedule delays.



PROJECT DESCRIPTION

The Data Center Relocation Project will create a dedicated King County facility in leased space at the Sabey Data Center in Tukwila to replace the county's existing data center in the Seattle Metropolitan Tower (SMT). The new facility will house approximately 50% of the county's data network systems, with room for expansion. Project delivery is being managed by the Facilities Management Division (FMD) and the Office of Information Resources Management (OIRM). Build-to-suit, design-build, and county-force delivery methods are being used. The project is currently in implementation.

SCOPE

The baseline scope includes: construction of 7,500 square feet (sf) of data center space, 580 sf of storage, and 3,982 sf of office space; installation of redundant fiber lines connecting to the county's wide area network core in downtown Seattle; installation of new or relocated IT network equipment; and data center staff relocation. The office space was removed from scope prior to construction to save \$1,322,318 in rent over the life of the lease.

▼ SCHEDULE* (*See "Issues and Risk" section below)

Approved Schedule	Current Forecast	<u>Comment</u>
11/21/08	Complete	Completed on schedule
04/10/09	03/31/09	Completed early
10/25/09	10/25/09	On schedule
12/15/09	12/15//09	On schedule
04/06/10	03/26/10	On schedule
	11/21/08 04/10/09 10/25/09 12/15/09	04/10/09 03/31/09 10/25/09 10/25/09 12/15/09 12/15//09

▼ BUDGET

	Budget		% of Budged		
	Appropriations	Life-to-Date	Appropriations	Forecast Cost at	Forecast Balance
Project	(1)	Expenses (2)	Expended	Completion (3)	at Completion
FMD	10,756,213	10,642,638	98.94%	10,756,212	1
OIRM	6,917,613	533,556	7.71%	8,143,475	(1,225,862)
Contingency	1,238,607	0	0.00%	1,399,764	(161,157)
Total	\$18,912,433	\$11,176,194	59.09%	\$20,299,451	(\$1,387,018)

Notes: (1) Through Ordinance 16564, approved 06/22/09. (2) Through 04/30/09, excluding encumbrances. (3) Includes \$ 26,320 in CPO oversight costs.

ISSUES AND RISKS

Submission and approval of a supplemental appropriation is urgently needed. This creates a risk that the project will run out of money before council acts to appropriate additional funds. This could lead to schedule delays.

For detailed information regarding this project, see the following pages.

King County Auditor's Office - Cheryle Broom, County Auditor

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Capital Projects Oversight Program – Tina Rogers, Manager

The Capital Projects Oversight Program (CPO) was established within the Auditor's Office by the Metropolitan King County Council through Ordinance 15652 in 2007. Its goal is to promote the delivery of capital projects in accordance with the council approved scope, schedule, and budget; and to provide timely and accurate capital project reporting.

CPO oversight reports are available on the Auditor's Web site (www.kingcounty.gov/operations/auditor/reports) under the year of publication. Copies of reports can also be requested by mail at 516 Third Avenue, Rm. W-1033, Seattle, WA 98104, or by phone at 206-296-1655.

ALTERNATIVE FORMATS AVAILABLE UPON REQUEST CONTACT 206-296-1655 OR TTY 206-296-1024

INTRODUCTION

This is the seventh monthly oversight report prepared for and submitted to council by the Capital Projects Oversight Program staff on the status of the scope, schedule, budget, and risk for the Data Center Relocation project. Oversight is conducted through monthly meetings with the project team members from FMD and OIRM and representatives from the Office of Management and Budget (OMB), who are assisting with the budget. Information has also been obtained through site visits and direct contact with Data Center staff. FMD and OIRM produce a separate monthly progress report and their update for April is attached. We will be providing a briefing about this project to the Government Accountability and Oversight Committee on July 8, 2009. We also plan on briefing the Budget and Fiscal Management Committee after the King County Executive (Executive) submits a planned supplemental appropriation request to council.

PROJECT STATUS UPDATE

Scope

No new scope changes were considered in April. As mentioned in the December 2008 report, an amendment to the Data Center lease has been agreed to in principle with the landlord to remove 3,982 square feet (sf) of office space. This will result in \$1,322,318 in rent savings over the life of the lease. This did not reduce the county's tenant improvement costs. The OIRM staff originally planned to occupy this office space will utilize existing OIRM space in the Chinook Building instead. The remaining Data Center space, including work space for the necessary on-site operators, is not altered by this scope change. The Executive will notify council of the intent to modify the lease by separate letter. The lease amendment will also include leasing a temporary fiber connection through the landlord for 12 months. The original budget anticipated leasing this temporary line for 9 months to provide redundant access to the county's wide area network (KCWAN) core in downtown Seattle while the installation of the county's permanent secondary KCWAN fiber line is being completed. However, only a 12 month lease was available. The additional 3 months required will cost \$ 536,089 and is being charged to the project contingency budget. The landlord has contracted with AboveNet for this connection.

Schedule

July 2, 2009

The schedule forecast for the project was partially modified during April as detailed below:

Activity	Baseline Schedule	March Forecast	April Forecast
Commissioning	5/22/09	4/24/09	5/15/09 (Actual)
Data Center Infrastructure	5/11/09	5/14/09	6/22/09
Wireless & KCPAN	10/7/09	9/30/09	4/13/09 (Actual)
Server Build Area	7/25/09	7/9/09	5/18/09 (Actual)
I-Net Equipment	6/29/09	7/15/09	6/23/09
KCWAN Fiber – Primary Line	6/15/09	6/30/09	4/28/09 (Actual)
KCWAN Fiber – Secondary Line	4/6/10	4/6/10	3/26/10
Temporary Secondary Fiber Line (AboveNet)	4/30/09	5/1/09	4/30/09 (Actual)

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OIRM's relocation consultant has completed the high-level move strategy for the project and is finalizing the detailed relocation plan for the mainframe computer and servers, which is scheduled to be submitted by July 17, 2009. Thus far, six relocation dates have tentatively been identified based on agency input. The relocation consultant's work will provide independent verification of the baseline schedule. We will be reviewing their relocation plan in detail when it is issued and will report on the adjustments, if any, that they recommend to the project schedule.

Based on the information available at this time, we do not have any major schedule concerns, unless cash-flow constraints discussed in the Issues and Risks section below cause the project team to delay activities on the critical path. An ongoing focus of oversight will be to understand and report on the cost impacts of any schedule delays which may develop and to recommend mitigation strategies, if needed, to the project team for consideration.

Budget

As detailed below, the Data Center Relocation project has a total budget of \$18,912,433 based on the current appropriations to three interrelated project numbers. The figures shown reflect the budget actions included in Ordinance 16564, which was passed by council on 6/22/09 and enacted by the executive on 6/30/09. Ordinance 16564 is not reflected in the budget data provided by FMD and OIRM in their April 2009 project status report:

Project No.	Project Name	Project Scope	Net Appropriations To Date
395657	FMD Data Center Relocation	Tenant Improvements	\$ 10,756,213
377219	OIRM Data Center Relocation	Computer Networking Equipment Purchase and Relocation; Data Center Staff Relocation	\$ 6,917,613 (1)
377220	OIRM Data Center Contingency	Contingency Budget	\$ 1,238,607
		Total	\$ 18,912,433

Notes: (1) This includes \$ 26,320 added by Ordinance 16564 to fund CPO's independent oversight charges for 2009. Although this was never reflected in the project budget, Ordinance 16564 also disappropriated \$ 12,919,007 erroneously assigned to Project 377219 and appropriated it to ABT Contingency Project 377222 where it was meant to go.

The project team continues to forecast the need for a \$1,387,018 supplemental appropriation as anticipated in the original 2008 appropriation request and included in the staff report to council as part of the review for this request. The project team is working with OMB on the 2009 supplemental budget request, which they now anticipate will be transmitted to council in early July, instead of May as previously reported.

Through April, the project expenditures total \$11,176,194, or approximately 59.09% of the current appropriation total. These expenditures include a \$9,500,000 lump-sum payment to the landlord, which was due upon substantial completion of construction per the lease agreement. In addition to this preagreed lump-sum amount, the project oversight panels (Sponsors, Contingency Review & Project Review Board) approved the payment of \$341,527 in additional tenant improvement charges to the landlord. This includes \$100,000 in security system improvements (part of the original budget request) and \$241,527 in electrical and cabling systems work. The security system improvements are being charged to the OIRM project budget. They were originally planned to be accomplished by contracting

with another vendor but the project team determined that completing this work through the landlord represented the most cost-effective option. The electrical and cabling systems revisions represent a 2.54% increase to the tenant improvement costs originally agreed to with the landlord and are being charged to the contingency budget. This work represents modifications made to the electrical and cabling systems during construction to correct ambiguities in the design documents. Because these modifications were made prior to construction, additional costs were kept to a minimum.

Although the county does not build data centers on a regular basis, there are several "lessons learned" available for future capital improvement projects from this experience:

- First, in Guaranteed Maximum Price situations like this tenant improvement, it is advisable to
 invest in pre-planning documents including preliminary design and a fully vetted performance
 specification. This is critical to assigning full liability for the detailed design specifications and
 correction of any errors or omissions discovered during construction to the landlord (or seller).
 In this instance, detailed material specifications were produced by the county, clouding the
 ownership of errors and omissions. At a minimum, such a document needs to provide the
 following information for the developer's use:
 - 1. Performance Requirements of all systems provided by the landlord (seller) and minimum materials standards.
 - 2. A detailed Statement of the Operational Needs underlying the project. In this instance, modifications were made during construction, but prior to completing work, to both the electrical and Cabling systems to improve operational efficiency and lower long-term operating costs. We agree that these modifications are reasonable. We also understand that the operational need for them became essential once the decision to remove 3,982 square feet of office space from the lease was made.
 - 3. A stable definition of the Project Program Plan including the occupancy (people load) requirements. In this instance, OIRM's occupancy requirement was modified after lease execution, which reduced operating costs but added capital cost.
- Second, especially for smaller projects like this one, we recommend that developers document <u>all</u> costs prior to lease execution, and throughout the design process. Obtaining this information before work is completed is a useful tool for negotiating modifications made during implementation since it enables an exacting comparison of the materials and equipment actually delivered against the original plans and specifications involved.

Issues and Risks

As first reported for January, the project continues to identify the need for the supplemental appropriation recognized in original 2008 budget request. Without this supplemental, the current project appropriation, is not sufficient to pay for the project through completion even if all available contingency is used. The project team now anticipates transmittal of a supplemental budget request to council in early July, instead of May as previously reported.

We believe that submitting the supplemental appropriation request this late is a risky strategy. Because of the time ordinarily needed to review and schedule supplemental budget requests for council consideration, the project could potentially run out of money before council acts to appropriate additional funds. This could put the relocation schedule at risk if the project needs to be delayed while awaiting additional appropriation. Although the February 2009 report indicated that the project could run out of

funds as soon as late summer, the project team has been re-evaluating their cash-flow and now believe they can stretch out their use of available funding into fall, including drawing down on contingency if needed. We have discussed their cash-flow forecast with them and will be monitoring their expenditures and encumbrances on a monthly basis to continuously assess their assumptions.

RECOMMENDATIONS

As stated in the January report, we continue to recommend that the King County Executive submit the supplemental 2009 budget appropriation request to council as soon as possible. The submittal should be based on the best available information on the forecast project costs at completion. To date, no submittal has been made.

As stated in the February report, we further recommend that documentation of the assumptions used in developing the estimate be provided to our office, so that we can evaluate and comment upon the adequacy of the project contingency available to support the remainder of the project. We expect to receive this information once the supplemental budget request is submitted to council and will review and comment on the reasonableness of the forecast cost of completion at that time.

Additional actions may be needed to mitigate the impacts of potential cash-flow constraints on project delivery. We will continue to monitor the cash-flow and schedule projections and the schedule for action on the appropriation request and make additional recommendations if needed. There are no additional recommendations at this time.

ACKNOWLEDGEMENTS

We appreciate the collaborative efforts of FMD, OIRM, and OMB in providing for effective oversight of the Data Center Relocation project consistent with council intent. This report was prepared by a team from the King County Auditor's Office, including Ron Perry, Tina Rogers, and Tom Wood. Should you have questions or comments on the report, please contact Tom Wood, the Capital Projects Oversight Analyst or Tina Rogers, the Capital Projects Oversight Program Manager.

DISTRIBUTION

King County Government Accountability and Oversight Committee

cc: Metropolitan King County Councilmembers

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ATTACHMENT

Data Center Relocation - April 2009 Report* (*Jointly issued by FMD and OIRM)

DATA CENTER RELOCATION

Facilities Management Division & Office of Information Resource Management April 2009 Monthly Report



Main Distribution Frame Area - King County Data Center

Project Summary

The Data Center Relocation Project will create a dedicated King County facility in the new Sabey Data Center located in Tukwila, Washington. The project will develop approximately 7,500 s.f. of data space and 580 s.f. of storage. The total budget is \$18.8 million which includes \$9.9 million for tenant improvements. The Data Center currently resides in leased space in the Seattle Municipal Tower. Through April 2010 the Facilities Management Division, Office of Information Management and the Sabey Company will collaborate on designing, constructing, equipping and relocating approximately 60% of King County government's IT equipment and Data systems to this new, state-of-the-art facility. The facility has additional capacity to house all King County Agencies IT systems. In addition, the project will provide two diversely routed, secure fiber networks to serve as redundant connections between the Data Center and King County's Wide Area Network 'cores' in downtown Seattle. This new fiber line system will accommodate 100% of today's IT needs with capacity King County for growth.

Progress Highlights

- FMD issued Substantially Complete notice . Tukwila issued a temporary Certificate of Occupancy
- Primary fiber and temporary fiber infrastructure completed.
- All network equipment delivered on time and undamaged.

Project Milestone Chronology

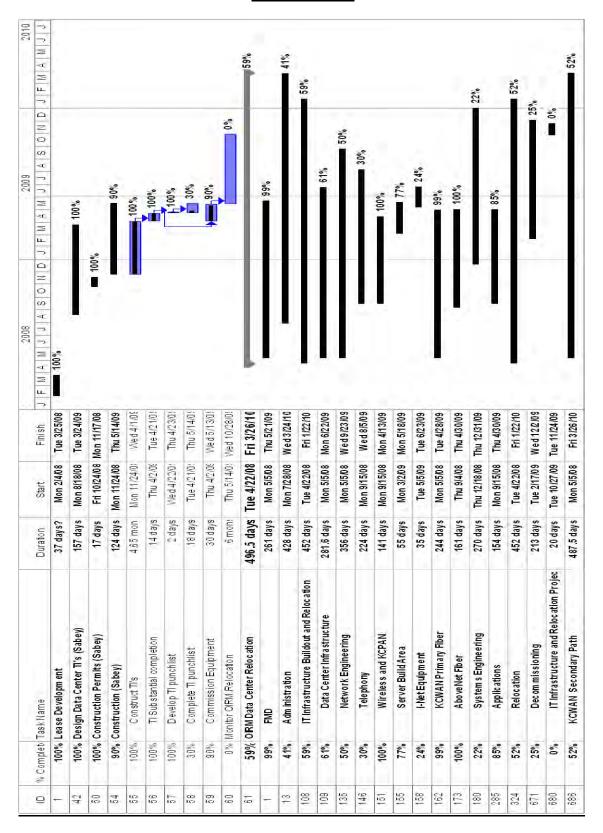
 July 2008 August 2008 August 2008 October 2008 November 2008 November 2008 November 2008 December 2008 January 2009 February 2009 March 2009 April 2009 	Data Center Legislation Approved King County Lease with the Sabey Data Center LLC Sazan Contract – CM and Technical Consultant Monthly Reporting to Auditor's Office and County Council MOU Between FMD, OIRM and the Budget Office Contingency Review Process established Responsibility Matrix established Relocation Consultant Contract Finalized Conditional design approval granted 100% Construction Documents submitted Temporary Certificate of Occupancy issued FMD issued substantial completion notice
April 2009April 2009	Temporary Fiber completed (Abovenet) High level relocation plan completed
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Summary Schedule

Schedule l	Jpdate:	4/30/09					
%	Activity	Baseline		Actual		Current Forecast	
Complete		Start	Finish	Start	Finish	Start	Finish
100%	Lease Development	2/4/08	8/15/08	2/4/08	8/15/08		
100%	Design TI's	8/18/08	11/21/08	8/18/08	11/12/08		
100%	Permits	10/24/08	11/21/08	10/30/08	11/18/08		
100%	Construct TI's	11/24/08	4/10/09	11/19/08	4/21/09		
90%	Commissioning	4/13/09	5/22/09	4/2/09			5/15/09
61%	Data Center Infrastructure	5/5/08	5/11/09	5/5/08			6/22/09
50%	Network Engineering	5/5/08	9/30/09	5/5/08			9/23/09
30%	Telephony	9/15/08	6/22/09	9/15/08			8/5/09
100%	Wireless & KCPAN	9/15/08	10/7/09	9/15/08	4/13/09		
77%	Server Build Area	11/12/08	7/25/09	11/15/08			5/18/09
24%	I-Net Equipment	3/9/09	6/29/09	3/21/09			6/23/09
99%	KCWAN Fiber-Primary Line	5/5/08	6/15/09	5/5/08	4/28/09		
52%	KCWAN Fiber-Secondary Line	5/5/08	4/6/10	5/5/08			3/26/10
100%	Temporary Fiber (AboveNet)	9/4/08	4/30/09	9/4/08	4/30/09		
22%	Systems Engineering	12/3/08	9/23/09	12/3/08			12/30/09
85%	Applications	9/15/08	8/10/09	9/15/08			
52%	Relocation Consultant Physical	4/22/08	10/12/09	4/22/08			10/25/09

Note: Items in bold indicate a change from the March 2009 Report

Schedule Detail



Budget Detail

Budget expenditures are tracking consistently with the schedule and planned expenditure levels.

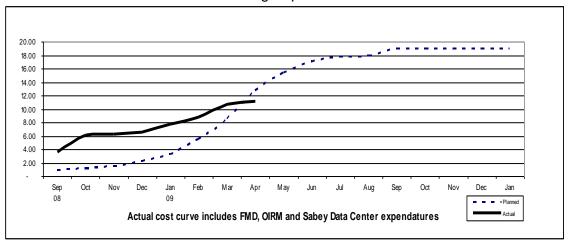
Contingency

Contingency Budget	\$1,238,607
Approved items	\$ (241,527)
Pending items	\$ (536,089)
Contingency available	\$ 460,991

- Contingency has not been utilized for items anticipated to be included in the planned 2009 supplemental appropriation request. The contingency available in relation to remaining cost risk is being continuously monitored.
- 2. A supplemental appropriation request currently estimated at \$1,387,018 is planned for June 2009.
- 3. 2008 fourteenth month carryover budget was revised to align with 395657 project needs.

Cost Element	Description		rrent dget	Exp	enditures	En	cumbrances	Current Balance	Estimat Compl		Estimate at Completion	Projected Balance
	FMD Data Center Relocation								•			
395657												
001	Design		646.580		564.142		82.428	10			646.570	10
003	Construction		575.529		9.510.587		- 02,420	64.942		_	9.510.587	64,942
003	Equipment/Furnishings	/	268,984	<u> </u>	268,983			1		-	268,983	1
005	Contingency	-	200,004		200,000			- '		-	200,500	
006	1% for Art									_	_	_
007	County Force Design							_		-	_	_
009	Project Management		265,120		298,926			(33,806)	31	146	330.072	(64,952)
003	Totals		756,213	\$ 10	0,642,638	\$	82,428	\$ 31,147		146	\$ 10,756,212	
377219	OIRM Data Center Relocation											
101	Data center Infrastructure		730,936		-		-	730,936	715,	747	715,747	15,189
102	Network Engineering	1,8	883,060		125,394		1,604,197	153,469	115,	525	1,845,116	37,944
103	Telephony		28,276		-		2,489	25,787	53,	571	56,060	(27,785)
104	Wireless & KCPAN		5,914		-		5,431	483			5,431	483
105	Server Build Area		10,890		-		-	10,890		-	-	10,890
106	I-Net Equipment		107,101		-		-	107,101	107,	101	107,101	-
107	KCWAN Fiber	1,8	839,866		24,257		9,846	1,805,763	1,815,	900	1,850,003	(10,137
108	Abovenet Fiber	-	704,861		-		1,056,763	(351,902)		-	1,056,763	(351,902)
109	Systems Engineering		-		-			-	109,	500	109,500	(109,500)
110	Relocation Consultant	1,0	000,000		118,500		1,247,904	(366,404)		-	1,366,404	(366,404)
111	OIRM Labor		580,390		265,405		60,167	254,818	679,	458	1,005,030	(424,640)
112	Misc.											
		\$ 6,	891,293	\$	533,556	\$	3,986,797	\$ 2,370,940	\$ 3,596,	802	\$ 8,117,155	\$ (1,225,862)
377220	OIRM Data Center Contingency											
	Tenant Impr. Design Revisions						241,527					
108	Above Net Fiber						536,089					
		\$ 1,2	238,607	\$	-	\$	777,616	\$ 460,991	\$ 622,	148	1,399,764	(161,157
	Grand Total All Projects	18.5	886,113	1.	1,176,194		4,846,841	2,863,078	4,250,	096	20,273,131	(1,387,018

Cashflow: Actual Versus Planned Expenditure Through April 2009



- Original legislation included a supplemental appropriation in 2009. ARMS Expenditures reported as of the 30th of reporting month IBIS Expenditures reported as of the 20th of month following reporting month φ
- Planned Cashflow distributed 9.5M lumpsum TI payment over Design & Constn period, To indicate earned value.

Planned Contract Listing

Description of each contract	Estimated Amount	Estimated Timeframe	Possible Vendor List
The contract would focus on consulting services for planning, scheduling and executing the relocation of the King County Enterprise Data Center. A sole source waiver has been received	\$1.5M	12/08 - 12/09	HP
Blanking panels and shelving for cabinets, power cords, patch cables, horizontal power, MDF caging	\$33,000	1/09-6/09	Graybar
Digital KVM and associated equipment, console controllers	\$324,000	1/09-6/09	Net IG (Carlyle)
Network switches	\$1.7M	3/09-8/09	Cisco
I-Net switch	\$86,000	3/09-6/09	Verizon (Marconi)
Other move related expense (e.g., surplus)	\$20,000	9/09-10/09	Emerald City Movers
Mainframe processor	\$240,000	7/09 – 10/09	IBM
Telephony, voice circuits	16.500	8/09 - 12/09	Qwest
Telephone testing	\$10,500	8/09 – 12/09	Cochran electric
Decommissioning of SMT	TBD	9/09-12/09	DoIT (City of Seattle usually requests their own inside staff)
Decommissioning Fortress Co-location (Auxiliary Server Room I and II)	TBD	9/09-10/09	Fortress
Closeout of lease at Fortress Co-location	TBD	9/09	Fortress with assistance of FMD
Seed equipment for distributed moves requiring minimal downtime	\$170,400	5/09 – 10/09	HP, Dell
Construction Management and Design Oversight.	\$197,000	09/08 - 07/09	Sazan Group Inc.
'Tenant Contribution' to lease Tenant Improvement	\$9,500,000	5/09 — 6/09	Sabey Data Center -